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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
02/203,000	04/30/1999	MICHAEL P. CAREN	10990105-5	7610

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AGILENT TECHNOLOGIES, INC.
INTELLECTUAL PROPERTY ADMINISTRATION, LEGAL DEPT.
P.O. BOX 7599
M/S DL429
LOVELAND, CO 80537-0599

EXAMINER

MARSCHEL, ARDIN H

ART UNIT

PAPER NUMBER

1631

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/302,898

Applicant(s)

CAREN, MICHAEL P.

Examiner

Ardin Marschel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 and 20-45 is/are allowed.
- 6) ☒ Claim(s) 18 and 46 is/are rejected.
- 7) ☒ Claim(s) 47 and 48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
~~PTO-1449~~ (2 sheets)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Attachment for PTO-948.

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DETAILED ACTION

The Petition decision which has Granted a Withdrawal from issue of the instant application, mailed 11/14/03, is acknowledged.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 10/6/03 has been entered.

Applicants' IDS, filed 10/6/03, have been fully considered with the following results. The following rejections and/or objections are newly applied. They constitute the complete set presently being applied to the instant application.

DRAWINGS

Applicants are again hereby notified that the required timing for the correction of drawings has changed. See the last 6 lines on the sheet which is attached entitled "Attachment for PTO-948 (Rev. 03/01 or earlier)". It is noted that a PTO Form 948 was mailed with Paper No. 4 on 3/21/00. Due to the above notification Applicants are required to submit drawing corrections within the time period set for responding to this Office action. Failure to respond to this requirement may result in abandonment of the instant application or a notice of a failure to fully respond to this Office action.

TITLE

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The present title is only inclusive of methods whereas both methods and apparati are claimed.

CHANGE OF INVENTORSHIP

In view of the papers, filed 7/21/03, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a). The inventorship of this application has been changed by the addition of the following inventor: Jay K. Bass.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of the file jacket and PTO PALM data to reflect the inventorship as corrected.

VAGUENESS AND INDEFINITENESS

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 18, last line, the phrase "the memory" is cited which lacks antecedent basis. The word "the" in said phrase is indicative of a previously cited memory, however, no such previous citation in claim 18 has been found. Clarification via clearer claim wording is requested.

PRIOR ART

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 18 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldeschwieler et al. (P/N 6,015,880); taken in view of Weber et al. (P/N 4,328,504).

Baldeschwieler et al. describes the fabrication of an array of nucleic acid biopolymers as well as its use for hybridization assays in the document taken as a whole, or as summarized in the abstract. Array fabrication is set forth in column 5, lines 15-40, wherein pre-synthesized oligonucleotides are optionally attached to a substrate as is also deemed to be polynucleotide deposition as in instant claims 18 and 46. An ink jet device for droplet deposition onto said substrate is summarized in column 6, lines 41-53, (a multiple head dispenser is also described as required in instant claim 46) and in column 9, line 5, through column 10, line 20, as also deemed a fluid droplet dispenser as instantly claimed. The same fluid in each dispenser head is disclosed by the usage

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of a common fluid type for nucleic acid delivery as exemplified by various solvent options in column 9, lines 54-56, or tetrazole as the common solvent in EXAMPLE 2 in column 10, lines 34-38, of the reference as also required in instant claim 46.

Baldeschwieler et al. lacks description of error correction practice as instantly claimed.

Weber et al. is directed to printing error correction via imaging printed material deposition in a printing system with corrective action applied to the ink jet deposition apparatus so that the actual deposition pattern is what is desired rather than containing errors as summarized in the abstract and is also a basic element of the instantly claimed invention. Weber et al. motivates the error correction practices disclosed therein due to pointing to ink-jet printing errors that were known as summarized in column 1, lines 5-33, and more specifically in column 2, line 42, through column 3, line 2. In column 4, line 30, through column 8, line 42, several deposition errors are optically sensed, and thus imaged, and corrected for via the sending of controller signals to the deposition ink-jet head and its associated driving mechanisms. The predetermined tolerance limitation as in instant claim 18, part (e), is described in Weber et al. in column 5, lines 43-60, wherein the predetermined tolerance which determines error is determined by recognition logic wherein any deviation from a desired signal.

Thus, it would have been obvious to someone of ordinary skill in the art at the time of the instant invention to prepare arrays as in Baldeschwieler et al. and be aware of ink-jet problems of deposition as summarized in Weber et al. thus being motivated to correct the errors with driving mechanism signals thus resulting in the practice of the instant invention. The system descriptions in Weber et al. are reasonably mediums for

the signals recorded thereon as thus physically associated with the printed substrate as also required in instant claim 18, part (i).

CLAIM OBJECTIONS

Claims 47 and 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

COMMENTS ON GANZ ET AL. (P/N 6,558,623)

Ganz et al. may support an Interference proceedings. This document will be reviewed as supporting a potential interference after resolution of the above issues.

INFORMALITY

The disclosure is objected to because of the following informalities:

In the 43, the status is unclear due to the presence of "(NEW, from 23)" in line 1.

Appropriate correction is required.

Claims 1-17 and 20-45 are allowed.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the Central PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The Central PTO Fax Center number is (703) 872-9306.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (571)272-0718. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (571)272-0722.

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Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instrument Examiner, Tina Piurkeit, whose telephone number is (571)272-0549.

February 19, 2004



ARDIN H. MARSCHEL
PRIMARY EXAMINER